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ROB GRAHAM

A TWEEDSIDE REMINISCENCE, BY W. CHAMBERS, LL.D.

I PROPOSE giving one of my early recollections, which lately turned up in the memory of the past. It refers to an incident which occurred only a few years after the beginning of the present century, when I was a boy at the burgh school of Peebles, a small town on the Tweed. The school in its way had a somewhat superior reputation, and drew to it pupils from a distance of several miles around. Trudging in all weathers, the children of farmers and ploughmen came to be educated along with boys and girls belonging to the town. Whatever they were, all were treated alike, and the intermingling of classes was never found to be in any respect disadvantageous; on the contrary, there sprung up agreeable acquaintanceships between the town and country boys that were mutually useful and agreeable.

Among the crowd of country lads who thronged in daily, there was one I have some cause to remember. His name was Rob Graham. I will try to give a picture of Rob. Imagine a sturdy boy of twelve years of age, well knit together, barelegged and barefooted in summer, with coarse red hair surmounting a brow so large that one would say there were good brains under it. Rob's face was placid like that of an old man, and I think was slightly marked with small-pox, as was then not at all unusual. His dress, of a simple kind, consisted of a pair of dingy corduroy trousers and waistcoat, and a short coat of that coarse fabric known as Galashiels blue, with two broad metal buttons staring out behind; which buttons, from their well-worn appearance, had probably embellished a succession of coats of Rob's father and grandfather; for in those days buttons were buttons, and went through a good deal of service before being dismissed. As the fastenings of the dress could with a rive of the hand be rapidly torn asunder, the wearer could at any moment throw off clothes and shirt and plunge into the

river stark naked. As Rob's leather cap, stuck on the top of his shock of red hair, was worth very little, we should deal liberally in estimating his whole equipment at the value of twenty shillings.

What signifies, however, the outside of boys? Who cares a farthing how they are dressed? The bodily physique and interior of the skull are the things really worth caring for. Rob's big square face and prominent brow shewed there was something in him. Poorly dressed as he appeared at school, he took the shine out of boys decked out with frills, shoes, and stockings. There was not a boy who shewed more dexterity at 'duck,' a game of pitching a heavy stone at a mark, or who ran with greater vigour at 'shinty,' on the school green. Rob was also a good fighter, and few boys, as the saying is, 'dared to take him up.' Yet Rob was a good-humoured and merry fellow, who did not want to quarrel with anybody. He even condescended to make himself agreeable to the girls in the school, by hopping on one leg in their game which they called 'the beds,' and in dexterously throwing up small shells to be caught on the back of the hand, and locally known as the 'chucks.' Then, he was so obliging. If he saw a poor woman carrying with difficulty a backful of clothes to be bleached on the banks of the mill-stream, he would offer to help her, and did so without any hope of reward. No wonder that this poor boy made friends, and was respected for his good conduct and gallantry. By birth a peasant. By nature a hero!

There in memory does Rob Graham stand before me. Miserably attired and educated, knowing nothing of the world outside the tranquil valley in which he was born, Rob had the dash and courage of a Crusader. Nor was he indebted to good feeding for his diligence and activity. In the morning before quitting home, his mother doubtless supplied him with a breakfast of oatmeal

190445

porridge and milk. That, in a great measure kept him going for the day. To stay his hunger, however, a piece of pease-bannock about the size of your hand, and nearly an inch thick, which his mother had baked on the girdle, was stuffed into his right-hand pocket—the left one being occupied with his 'peerie' and 'bools'*—and so he was provided with dinner; for beyond the lump of bannock and a drink of water, which he scooped with his hand from the Tweed, he tasted nothing till he was comforted with a repetition of porridge and milk for supper. So much for Rob's dress and mode of living.

By some unaccountable feeling, I felt interested in Rob. I saw him daily seated in the left-hand corner of the school as you go in, poring over his lesson, or playing some prank when the master's back was turned. On one occasion, I pointed out to him how to work out a question in arithmetic on his slate; and at another time afforded some little advice as to his style of penmanship in writing 'a piece' for the public Examination by ministers, magistrates, and other great people. As for his reading I did not interfere, for it would have been useless. Like other pupils, he read aloud with a coarse facility, lessons from Barrie's Collection, and repeated psalms by heart, with little regard to points or modulation, and so loudly, that if the windows were open, you might have heard him a hundred yards off—no one finding fault, not even old Barrie, in his duffle spencer and brown wig, who had come a long way in his gig to honour the ceremonial, and dine afterwards according to use and wont with the magnates of the burgh.

The trifling intercourse I had with Rob led me to make inquiries about his origin and place of residence. It was a simple story. He was the son of a small farmer, or at least the occupant of a cottage and a few acres, known as Kailzie Park Foot. The place was a kind of offshoot of the park or pleasure-grounds connected with the mansion of Kailzie, and situated on the south bank of the Tweed, at the distance of about three miles eastward from Peebles. Possibly, Rob's father had a charge of the pleasure-grounds, or he looked after the hedges and ditches on the property, or did some other work for the laird, for which he was allowed the cottage, a cow's grass, and certain money perquisites; by all which a decent appearance was kept up. The family was not large.

Rob had a sister, Jenny, two years younger than himself, who got a little schooling, but only in summer, as she was unable to undergo the severity of winter travel to and fro. She was a pretty and interesting girl Jenny, with flaxen ringlets and bright intelligent eyes. Though meagrely dressed in a gingham frock, and barefooted, she had a certain lady-like appearance. And that is what may be occasionally seen among school-girls of a

humble class. However poor be their dress, we see in their graceful figure, their gentle manner, their flowing hair, their sparkling intelligent eyes, that they are ladies by nature, and would, if polished up, do credit to any society in the kingdom. Such was Jenny Graham, who, unconscious of her girlish beauty, was an object of general admiration. With good taste, as a bit of decoration, she often had a rose or a spink, or sprig of honeysuckle, stuck in the breast of her dress. The boys at the school called her 'The Flower of Kailzie.'

As children together, Rob and Jenny grew up with brotherly and sisterly affection. In autumn, Rob visited and climbed the gean-trees at Haystoun Burn, to bring home a capful of geans or wild-cherries for Jenny. Sometimes ascending the hills he would spend hours in seeking for and gathering 'craw-crows,' a kind of wild bilberries, from the lofty ridges which overlook the valley of The Glen—all to be a posie or offering to sister Jenny. Requiring these attentions, she accompanied him to the Torwood when he went to scale the tall pine-trees in quest of young rooks. And the two had often rambles along the river-bank from Cardrona to Kingsmeadows, on which occasions it was no unusual thing to see them seated on the green margin of a little peninsula which diagonally juts into the water. It is a pleasant spot, nearly opposite the ruins of Horsburgh Castle, which picturesquely crown the height on the northern side of the river. Here, on the edge of the peninsula grew quantities of tall rushes, with which Rob cleverly plaited head ornaments and necklaces for Jenny, who, proud of her rustic decorations, scampered home with them in the glee of innocent childhood.

There was but one drawback in the pleasure derived by Jenny from these river-side rambles. She felt pretty safe as far as the small peninsula. Beyond that, westward along the green haugh towards Scott's Mill, she apprehended danger. On the opposite bank was the farm of Eshiels, laid out in handsomely shaped fields, and environed with some young plantations. In one or other of these spacious fields there was ordinarily a herd of cows grazing, attended by a formidable bull, of which little Jenny Graham could not help being afraid. She had some reason to be so. One day, being sent by her mother on an errand to the family at Scott's Mill, she was tripping merrily along the green haugh, when to her dismay the Eshiels bull, as it was familiarly termed, left the herd and at a smart trot made for the river, as if to cross and attack her. The bull had possibly been roused by seeing a scarlet tippet on the neck of the young maiden. Be that as it may, the animal, bellowing with rage, plunged into the stream at a spot where it could be easily forded, and would inevitably have carried out its malicious intention of tossing and goring, perhaps killing, Jenny, but for her presence of mind. She got out of reach of the ferocious beast by hastily

* Peg-top and marbles.

scrambling over a wall that bounded Kailzie Park, and taking refuge in the policy was safe from pursuit. Being for the time circumvented, the bull looked glaringly over the wall, and with a growl which sounded like a threat of taking its revenge some other day, it slowly retreated to its pastures on the other side of the Tweed.

Jenny never forgot her fright on the occasion. As soon as her brother Rob came home from school in the afternoon, she told him of the affair, and that after this she did not dare to go with him in his rambles along the river-bank, at least not so far as the ground opposite Eshiels. Rob heard his sister's story, and from that moment resolved to punish the Eshiely bull for running after and frightening Jenny. He had indeed for some time been pondering on a plan for quelling this torment of the neighbourhood.

'Keep yourself easy, Jenny, lass,' said Rob; 'I'll mak' the Eshiely bull pay for chasing you. He'll no try that again.'

'But, Rob,' replied his sister, 'what can you do to the bull? You're only a laddie, and you may get into trouble. He's an awfu' beast the Eshiely bull. Let him alane. Dinna gang near him, Rob; dinna gang near him!'

'I tell you to keep yourself easy about me, Jenny. I ken fine what to do. It will be capital fun, and I'll be as safe as if I were at hame.'

Jenny knew Rob's resolute character, and having also some confidence in his discretion, let the matter drop. Still she felt uneasy about what might prove a serious misadventure. It is not surprising that the affectionate girl was uneasy. Here was a poor lad unprovided with firearms or any lethal weapon by which he could inflict an injury on an animal so jealous of approach, so dangerous when threatened with attack, and yet he was confident that he would successfully, and with little or no hazard to himself, impose a heavy vengeance on the bull. He would not do it skulkingly or unfairly. He would go to work with the spirit of a sportsman. If the bull came to grief, it would have itself to blame. Brave lad! Like Harry Bluff, 'though rated a boy, he'd the soul of a man!' In the depths of his consciousness, Rob had made up his mind what he should do, without consulting any one as to his extraordinary project.

It was necessary, however, in order to carry out the campaign, that Rob should have two or three confederates of his own age. These he was not long in securing, for the Eshiely bull was a public nuisance, and the youths all round about would gladly take part in any scheme that promised to give the monster a suitable chastisement for its audacity. The lads whom he enlisted in the adventure were three school companions who lived in the neighbourhood. They were Tam Jackson, son of a ploughman at Laverlaw; Willie Ramage, a son of the farmer at Whitehaugh; and Sandy Clapperton, son of the griever at Cardrona Mains. All entered cordially into the proposed scheme. It was explained to them that they

were to be mere helpers or onlookers. Rob was to take upon himself the heavy end of the business. The prospect opened out to them was perfectly charming. It would be the nicest thing they had ever had all their days.

Like the stage-manager of a theatre in superintending a morning rehearsal, Rob schooled the three boys in their several and collective duties. To speak in the language of the Spanish Bull-ring, they were to act as *chulos*, whose duty consists in waving flags and otherwise distracting the attention of the bull, while the *matador* has the responsibility of despatching the animal. Rob was to be the *matador*, only he had no intention of killing the bull. All he proposed to do was to inflict a punishment that would teach him better behaviour. It was agreed that next Saturday, if the weather kept fair, the play should come off, and all were to be at their post under a tree at Scott's Mill at a specified hour. Meanwhile nothing on any account was to be whispered on the subject.

It was a well-devised drama. All depended on its proper performance. Rob was fortunately well acquainted with the scene of operations. Born and reared within a stone's throw of the Tweed, on its south bank, he knew every rapid and pool within a stretch of three or four miles. From Kailzie Park Foot for a certain distance westward, the water was comparatively shallow, and it was hereabouts that the Eshiely bull had forded the stream in pursuit of little Jenny Graham. Farther up, the water deepens until it becomes an unusually deep and broad pool, just where the river makes a sudden bend at Scott's Mill. Boy as he was, and with a miserable apparatus, Rob had fished every inch of the water with fly as well as worm bait, and had now and then brought home a few small trouts to his mother. One thing he was set upon. It was to try to catch a large lamprey, or 'ramper eel,' as the Peebles boys called it, which, considered to be a dangerous water-snake, was a terror to juveniles wading the river. The lamprey was known to lurk somewhere in the deep pool at Scott's Mill.

Rob considered it would be of no use trying to lure the dreaded creature with an ordinary line and bait. He constructed a round wicker-basket, with a hole in the side, in the manner of a mouse-trap, which would allow the eel to get in, but not to get out. Inclosing a bait of garbage and a stone to sink it, the wicker trap was tethered to the shore by a strong cord to a stake, and pitched into the middle of the river. Rob's foresight and skill were rewarded. Next morning, he had the satisfaction of hauling in the trap with the lamprey in a rampagious humour inside. It was, as I recollect—for I went to see it, stretched on the sward below Scott's Mill—a huge creature, four to five feet long, with seven holes or gills whereby to breathe on each side of its head, while it firmly sucks itself to any object with its mouth. Among all the youngsters of the district from Howford

to Peebles, Rob rendered himself famous by having caught the ramper eel, and of having skinned it too. As a trophy, he came one morning to school with the skin of the eel wound round his ankle like a garter. We mention the circumstance as an instance of Rob's pluck, and that he was not unqualified to face the Eshiel bull.

Saturday, on which was to be the proposed diversion with the bull, at length arrived. It was a delightful day. The air serene, the fields and trees around in their best verdant array. Shielgreen Kips on the one hand, and the Lee Pen on the other, stood out as prominent peaks against the bright blue sky. A more charming scene is not found in Peeblesshire. The Eshiel herd of cows, with the bull a little apart, were composedly grazing in the field immediately adjoining the pool at the mill. There had been heavy rain up the country the previous day, which had swollen and deepened the river, which, without being greatly discoloured, flowed majestically between its green banks. Its increased depth was favourable for Rob's purpose. The pool with a swirl here and there on its surface, was in capital order. All circumstances conspired to promise success for the intended exploit.

At the appointed hour, the three lads, Jackson, Ramage, and Clapperton, who were to act as assistants, were at their post. There they were seated on the grass under an old ash-tree, on the bank of the river at Scott's Mill. Rob also kept tryst, for his companions had hardly seated themselves when he appeared on the scene, carrying a short but very effective oak walking-stick. The stick was a kind of heirloom. It had belonged to Rob's grandfather, a stirring fellow in his time, and likely enough the stick had figured as a weapon in brawls at Beltane fair. The stick was a remarkable stick. At the upper end was a round knob fashionably carved, near which there was a hole for a cord, which could be wound round the hand or wrist. The lower end of the stick was shod with what looked like a pike, that would take a good grip of the frozen ground in winter, and be formidable in any defensive struggle. Rob had appropriated the stick for the day, and we shall immediately see the use he made of it.

Well, here were the four boys met. There were but few words spoken. The business of the three auxiliaries was to do all in their power to enrage the bull by shaking handkerchiefs of different colours they had brought with them; and particularly when Rob was engaged with the animal, they were to run hither and thither, and by derisive shouts draw it away in any required direction. This and other measures being understood, the play commenced.

There was a united shout, the handkerchiefs were wildly waved. Next, a provoking cry of 'Bull, bull, bull!' assailed the object of attack. It was like a trumpet summons to battle.

The bull being unacquainted with the pro-

gramme, was apparently unable to comprehend the meaning of the sudden uproar. Lifting his head inquiringly, he viewed the force which invited his attention. 'Only four boys; I shall soon settle them.' If the Eshiel bull had any mind at all, that is what he probably thought of them. They were only worthy of his contempt. Still there came the provoking cry of 'Bull, bull, bull!' uttered with offensive reiteration. The challenge was to the last degree insulting. There was an impertinence in it that was unendurable. Coming to this conclusion, up went the bull's tail, as if shaking out a banner of defiance, and with a mighty roar he moved at a trot which gradually increased in speed.

He was a grand sight. There he came frenziedly on with his surly white face, his generally dun colour, his black muzzle, and short pointed horns. Well shaped, he would have taken a prize at Islington, even in these days of advanced culture. At a bound he cleared a low dike near the river, to which he went as direct as an arrow, with a view to attack the foe on their own ground. What did he care for the Tweed. He had forded it dozens of times. He had stood in it up to the middle in hot days with all the cows about him, cooling their legs and whisking their tails to keep off the flies. He would at once cross the river.

In his eagerness to get at the enemy, the Eshiel bull with all his accomplishments failed to remember that at this point fording was impossible, and that he must inevitably take to swimming, which was not exactly within his experience. In his sober moments he might have thought of this. Now, his blood was up, and on he drove right into the pool.

Like a general at the head of an army, Rob steadily watched the motions of his antagonist as he came headlong on to the attack. His attitude was worthy of being pictured by an artist. With delight he saw the bull advance right onward, instead of making a circuit to a lower and shallower part of the river—in which case the game would have been up. When the monster, snorting and bellowing, with flashing eyes, and with his tail up, plunged into the pool, Rob's time was come. Now or never he must act.

It was a trying moment, but with teeth clenched, Rob never quailed. Like a good soldier going into action, he had but one feeling, and that was to do his duty. Now, then, for it. To throw off his clothes till he stood stark naked, was the work of an instant. Seizing the old oak stick and firmly attaching it by the cord to his wrist, he dashed down the bank into the water. He was a capital swimmer, could dive and turn with a sort of amphibious instinct, as most river-side boys can. Courageously he struck out, heading a little to get up stream and bear down on the enemy. About and about he swam, ever with the stick dangling from his wrist. The bull saw his approach, and with a fierce glare

turned abruptly towards him. Rob eluded the encounter by diving out of sight. This sudden and strange disappearance considerably disconcerted the bull. He could not imagine what had become of Rob, and in his perplexity determined to proceed towards the bank, on which the boys kept shouting and defying him; so onward he went, more enraged than ever, but somewhat confused in mind from the novelty of the proceedings.

During this by-play Rob had, underneath the water, got skilfully to the rear of the bull. This is what he had all along wanted. He now felt that the day was his own. Approaching the bull stealthily, he got hold of his tail, which was floating conveniently in the water, and with a degree of dexterity worthy of an acrobat, he leaped at a bound upon his back. It was a singularly well-managed feat. A terrible fix this for the Eshielly bull. He never expected to have been made the victim of such a trick. The superior brain of a schoolboy had out-manceuvred him. When Rob got fairly astride on the bull, and loosening the cord, flourished the stick in his hand, his boy-companions, in their mirth, set up a roar of laughter. It was a pity there was not a larger body of spectators. The scene would have brought down the house at Astley's.

The bull was of course prodigiously annoyed, besides being enraged to madness at finding a boy seated on his back, as if he had been a riding-horse let out for hire. No bull in the universe had ever been treated with such atrocious indignity. Moved by these heart-rending considerations, he wriggled, in the hope of getting Rob off his back. As jockeys would say, Rob was firm in the saddle. A horse may plunge and rear and throw his rider, but he does so by having good footing. The bull had no footing at all. He had no *point d'appui*. He was swimming for bare life, and had enough to do in keeping his head above water. He had no fins wherewith to propel himself in any required direction. No webbed feet. His cloven hoofs could make little way in the water. In short, do as he liked, he could not throw his rider. Rob had him at his mercy.

As has been said, Rob had no wish to kill the bull, nor did he wish to maim or seriously injure him. As he used to avow, he wanted to give him 'a drilling.' He now began operations. With a swing of the arm, he brought down the knob of the cudgel with a smart blow on the head of the animal, saying at the same time: 'Tak' that for frightening our Jenny.' And so on he went, raining down blows on the head and shoulders, always repeating: 'Tak' that, and that, for frightening our Jenny. I'll learn you no to be sae ready crossing the river and running after people.' The bull perhaps did not understand the full force of Rob's meaning; but he knew he was overpowered in a way to bring down his pride.

'Hit him on the horns, Rob,' cried Sandy Clapperton. 'He'll no like that.'

Rob was not a cruel boy. He had true courage

and generosity, and would not take a mean advantage of his enemy. He accordingly did not feel inclined to strike the bull on the horns, for he might have broken or dislodged one of these appendages, and damaged the beast past recovery. So he continued to beat him in a manner to be painful and mortifying without being absolutely injurious. It was amazing how this untutored country lad knew the exact length he might reasonably go. There was in it no small degree of intuitive common-sense. Swimming about in a lumbering way, the Eshielly bull was for the first time made amenable to discipline. By the persuasive agency of the walking-stick, he was constrained to swim in a kind of circle, as if performing in a piece of horsemanship at a circus. It was important never to let him get so near the land on either side as to find a footing. He was kept as nearly as possible in the middle of the pool, round about and round about, beaten with the oak stick all the way, and told by Rob that he was punished as a mean-spirited wretch for running after and frightening little girls.

The whole thing was a pretty piece of rude play. Rob was a moral disciplinarian. Out of his own conceptions of rectitude, he did that which the public at large ought long since to have done in a regular and legal manner. The Eshielly bull ought to have been suppressed as being a nuisance, almost as dangerous to the community as a wild beast. Nobody interfered to any good effect. The proprietor of the animal was one of those miserably selfish individuals who, minding only their own interest, are indifferent to the rights of others. He had been frequently told of the alarm caused in the neighbourhood by the bull, but treated the matter as of small consequence. If the bull annoyed or killed anybody, what did he care? People should keep out of its way. As a self-constituted minister of justice, Rob Graham, after a droll fashion, settled the business. By dint of his grandfather's stick he brought the bull to its senses, forced it to see the error of its ways.

The play lasted about half-an-hour. During that time, in its gyrations in the water, Rob gave the bull what he considered a proper chastisement. Reduced to extremity, it had no heart to prosecute the war. It was fain to get back to its own side of the water. Rob indulged it in this laudable desire, for he thought he had humiliated it sufficiently. He let it make for the north side of the river. Just as its fore-feet touched the ground, he gave it a parting thwack which it was likely to remember. And dropping off at the tail, he bade the bull good-morning. The beast staggered away in an exhausted and dazed condition to whence it came, with its tail between its legs, and cowed in a way that never bull was before. Having done his duty, Rob swam across to the southern bank, with his grandfather's stick in his teeth, and was congratulated on his gallantry by his juvenile companions, as also by the miller in his dusty garments, and two or

three other spectators who had collected at the spot.

From that day forward the Eshiel bull never crossed the river, nor did he run impetuously to attack strangers passing on the highway. The nonsense was taken out of him. As the Peebles folk said, in their old-fashioned vernacular, he had got 'a staw'—meaning an effectual surfeit. The proprietor of the bull affected to be angry at the way the animal had been treated; but was only laughed at. The thing was too ludicrous to be taken up seriously.

Were this a romance, we should describe Rob Graham as going abroad, and like another Clive, distinguishing himself in the public service. But all we have to relate is a simple country story, as events are recalled by memory. Rob's extraordinary feat in taming the Eshiel bull, and adroitly suppressing a gross local evil, met with no public acknowledgment. He moved in too obscure a sphere to be complimented. Rob, however, never boasted of his exploit, nor did he care for its being mentioned. The incident is long since forgotten; perhaps not remembered by a single person alive but the present narrator. As far as we have heard, Rob Graham, who might be designated the 'gallant Graham,' dropped into the position of a ploughman, from which he rose by his industry and intelligence, to be a griever or land-steward in the neighbourhood. Unlearned, yet sagacious; valiant, yet docile; humble, yet manly and independent, Rob might be accepted as a specimen of those 'hardy sons of toil' spoken of feelingly by Burns in melodious verse, and of whom the poet himself is recognised as having been an illustrious example.

'Bonny Jenny Graham,' Rob's sister, is said to have been married to a farmer in the west country, and this is all we can tell of the gem of the old burgh school, the 'Flower of Kailzie.'

PHOTOGRAPHIC PROGRESS.

It is doubtful whether any industrial art has made such rapid strides within the last thirty years as that of Photography. Founded upon the simple discovery that a certain chemical salt—the chloride of silver—becomes blackened upon exposure to light, the art has grown step by step into an important national industry. It would be next to impossible to estimate the number of persons who, directly and indirectly, owe their daily bread to King Sol in his character of Artist. A glance at the advertisement columns of one of the journals devoted to this interest will give us some idea of the busy number of camp-followers running in the wake of the huge army of photographic artists of Great Britain alone. Opticians, paper-makers, chemical manufacturers, glass-makers, cabinet-makers, besides a host of others who supply the *et-ceteras* of the business, vie with each other in the adaptability of their goods. Other countries can no doubt shew a similar list—notably France,

whose paper is used by photographers throughout the world.

Although the peculiar affinity of silver chloride for light was discovered by Scheele just one hundred years ago, its application to art was not recognised until the year 1839, when Daguerre in France and Talbot in England almost simultaneously hit upon the method of rendering permanent the pictures which had been before obtained, but which had faded away into darkness as quickly as the daylight which had given them birth. This discovery of *fixing* the image, as it is technically called, was really the starting-point of an art, samples of which, good, bad, and indifferent, are now to be found in every homestead in the kingdom.

The mysterious power which could seize almost instantaneously the fleeting appearances of moving life, could not fail to take a strong hold on the public attention. Other art-pursuits had of course previously had numerous aspirants, but they came and went as fashions do, without leaving any permanent good behind them. Not so photography, which is perhaps unique in owing its present state of perfection to the exertions and patient investigations of mere amateurs. The reason of this unusual state of things is probably due to the fact that photography has required a large expenditure of both time and money to bring it to maturity; both which commodities are more plentiful with those who have not to work for daily bread.

The earliest sun-pictures, as produced by Daguerre, and named after him, were formed on silver plates treated with iodine. After exposure in the camera, they were developed by the action of mercury vapour, which attached itself to those portions of the plate which had received the greatest amount of light. Such pictures were necessarily difficult of multiplication, each impression requiring a separate exposure and development. Examples of this early method of photography may still be seen in many houses, where they have been carefully treasured as mementoes of friends who have passed away. These pictures are by no means of a permanent nature, the action of the air contributing with other causes to tarnish the silver plate, and so gradually to destroy the image thereon.

The discovery of the collodion process by Archer in 1851, quite supplanted the previous method, and gave photography an impetus which has carried it rapidly forward to the present date. Numerous substances have been tried at different times to support mechanically the delicate sun-printed image, but nothing has as yet been found to equal collodion upon glass.

Photographic art has now become such a thing of our every-day life, that perhaps there is scarcely an intelligent person who does not know the difference between a negative and a positive. Every one nowadays has his or her portrait taken at least once, and can well remember the nervousness incidental to a first visit to the photographic

studio. Usually the photographer is kind enough to allow his anxious client a glimpse of the picture in its earliest stage, when the lights are where the shades ought to be, and *vice versa*. Such is the negative, from which any number of positives may be printed by the action of sunlight on prepared paper placed underneath it. These silver prints (for although the silver plate is banished with the old method, chloride of silver contained in the pores of the paper still holds its own) have unfortunately the character of not being as permanent as they might be. This fault is commonly attributed to carelessness in not thoroughly eliminating the salt used in fixing the pictures; so that, by a strange anomaly, the discovery which claimed to make our photographs permanent is now charged with the sin of causing their ultimate deterioration. Photographers complain that the great competition, which has led to the adoption of low-priced work, will not permit them to give to the washing of the prints the time and attention which permanence demands. There are no doubt other causes at work in our heavily charged town atmospheres which have a destructive effect on our photographs. At anyrate, be the cause what it may, it is the rule and not the exception to find a paper print of say ten years old, sadly faded and generally disfigured. Such a great disadvantage as this has met with an antidote in the shape of a discovery which has to a certain extent superseded the practice of silver printing. We allude to the carbon process, which is dependent upon the curious fact that bichromatised gelatine, after exposure to light, becomes insoluble. That is to say, a mixture of gelatine with the bichromate of an alkali—such as the bichromate of potash—will remain soluble so long as it is excluded from light. Carbon in the form of lampblack, or indeed any pigment, is mixed with this bichromatised gelatine, and paper coated therewith is exposed under a negative in the same way as in the case of a silver print, warm water being afterwards used to wash out those portions of the prepared surface which the sunlight has not rendered immovable.

Such, briefly, is the mode of producing the so-called carbon pictures, which without doubt are, as they claim to be, as lasting as the paper on which they are printed. They are not equal, in point of brilliancy, to the better known silver pictures, but this disadvantage is more than counterbalanced by their good keeping qualities. The word carbon as here used is a misnomer, for as we have already indicated, other pigments, most of which have a metallic origin, may be used in the process.

Photography as now practised may be classed under two general heads—the wet process and the dry process: the first being solely dependent upon the use of collodion and the silver bath; the other dispensing with either or both. Hitherto, the great obstacle to the landscape photographer has been the cumbrous nature of the impedimenta necessary to the production of pictures at a distance from home. It is by no means an easy matter to transport a dark tent containing a chemical laboratory, together with a camera and the necessary supply of water, from one place to another. Moreover, the scenes which naturally tempt the artist lie in unfrequented, and oftentimes in almost inaccessible places. The use of dry plates, by which the necessity of a tent is altogether obviated,

has rendered the art far more easy of accomplishment, and has thus placed outdoor photography amongst those pastimes which a non-professional can successfully pursue. In the wet process the sensitive collodion plate must be exposed to the air within a very few minutes of its removal from the silver bath, otherwise it becomes quite useless; the object of the various dry processes being to preserve the film in a sensitive state, so that it can be exposed as occasion may require, and developed in the studio at a future time. It is needless to point out that this method of photography dispenses at once with any travelling gear except the camera and lens, and a convenient light-tight receptacle for the sensitive plates. Many ingenious contrivances are now used in the form of changing boxes—as they are called—by which plates may easily be transferred to the camera without danger of exposing them to any accidental gleam of light. The jealousy with which a tourist naturally guards his treasured dry plates has more than once roused the suspicions of the acute Custom-house officer, who, in his zeal for the welfare of the revenue, has unwittingly spoiled the produce of many days' careful work, by insisting upon opening the strange-looking box!

Although it would be beyond the scope of this paper to enter into detailed explanation of the manner in which dry plates are prepared, the importance of the subject must claim some attention at our hands. In order to render a collodion plate capable of being kept indefinitely in a dried and sensitive condition, it is found that a solution of some organic substance must be washed over it, and dried with it. To enumerate all the various agents that have been employed for this purpose, would be impossible. Tea, coffee, sugar, tannin, gum, gelatine, with many other compounds, have each found favour with different experimenters, and with varying success; but the last-named substance, gelatine, is perhaps likely to supersede all the others, as giving more satisfactory and constant results. Plates thus prepared, although almost wholly disregarded by the professional artist, have, on account of their portable nature, a large sale among the amateur members of the photographic world. They are also almost exclusively used in astronomical photography, a branch of the art to which we will now direct the reader's attention.

It will be remembered that on the occasion of the last eclipse of the sun, expeditions to observe it were sent out from nearly every country of the civilised world; each expedition depending largely upon photography as a means of recording its labours. Although the state of the weather at many of the selected stations rendered the apparatus useless, a great number of pictures were actually obtained, a comparison of which set at rest certain theories relating to appearances which had up to this time been the subject of much discussion and speculation. No human hand could have correctly depicted such an ever-varying object as the sun presented at this time, to say nothing of the well-known fact that the power of correctly estimating appearances varies so much with individuals, that a comparison of mere drawings would be quite useless for the purpose in view. The cause of the periodical changes in the sun's spots yet remains to be discovered; and it is probable that the photographs which are being almost

hourly taken (having for their object the solution of this problem) will ultimately lead to a satisfactory result.

The transit of Venus represents another important field of inquiry in which photography has done useful work. The expeditions fitted out two years ago, with their splendid array of modern instruments, would compare strangely with the preparations for the investigation of 1761, when Captain Cook started on his ill-fated voyage to Otaheite. Still more vivid does the progress of scientific research become when we remember that the very first observation of the transit of Venus was made one hundred years earlier, with no better apparatus than a bit of smoked glass. When we consider that the main value of such an observation rests upon the appearances recorded at the moments of ingress and egress of the planet upon the sun's face, the importance of a means for securing *instantaneous* pictures will be appreciated. It is true that certain optical defects exist in these pictures which prevent their use for the purpose of reliable measurement; but these obstacles, we trust, may be overcome by 1882, when the next transit will be due.

The practice of micro-photography—that is, a combination of the camera with the microscope—has lately met with some attention among scientific men, and there are now many workers who are trying to bring it into the prominence which it deserves. Formerly, drawings of microscopic preparations could only be secured by means of a prism (or camera lucida, as it is called), fitted on to the eyepiece of the microscope, by which means an enlarged spectral image of the object became apparent on a sheet of paper placed near the instrument; the lines thus exhibited being rendered serviceable by the careful use of the lead-pencil. It is obvious that such means afforded a very imperfect representation of the image as it really appeared in the field of the microscope, even if the operator possessed some amount of artistic skill; but now, by the aid of the camera, a picture of the most unflinching accuracy can be secured in a fraction of a second. Such rapidity is only required, however, where the object is of a fluid or animated nature, as in the case of moving organisms. We venture to think that there is a great future in store for micro-photography.

One of the most recent applications of photography to scientific uses is exemplified in its adaptation to the spectroscope, by which we are furnished with evidence of the composition of the heavenly bodies. Any account of this marvellous device we must, however, leave for a future paper. In the fine and useful arts, photography now plays an important part. Portraits, life size, executed in oil, are successfully painted from small photographic likenesses, at a comparatively small cost; and with this important advantage, that the likeness in every case is unchallengeable. This may be considered a great triumph in the photographic art.

This power of enlargement to any reasonable dimensions is a great addition to the resources of the photographer; and it is not alone confined to portraiture, as the numerous large-sized landscapes constantly exhibited will testify. In former times, when the lenses then in use were capable of including but a small portion of a view, the only way to secure large pictures was to take them in

sections, and afterwards to join the paper prints. The lines of junction were naturally a great disfigurement to the finished result, to say nothing of the extra labour which such mode of proceeding involved. The impossibility of preserving the exact tone of colour in these different sections through all the vicissitudes of printing, toning, and fixing, was also enough to condemn the process. These difficulties have been altogether obviated by the construction of lenses which will include any amount of the view before which they are placed, and which moreover give a picture so perfect in detail as to admit of being greatly magnified without injury to its beauty. The enlargement is now carried out by a copying camera of the form of the well-known magic lantern, and lighted by an oxy-hydrogen or magnesium burner. The negative takes the place of the ordinary painted slide, and the enlarged image is projected upon a sensitive surface.

Perhaps the greatest problem which the photographer has to solve is the production of landscapes with their natural canopy of clouds. This difficulty will be understood when we explain that the sky being such a brilliant object, requires but a very small fraction of the exposure which is demanded by the grass and trees beneath it. The plan generally adopted is to secure a separate negative for each of these component parts of the picture, and to join them mechanically previous to the operation of printing. The beautiful instantaneous marine studies which we all admire—and which represent the clouds in every variety of form—are produced without this double exposure; for it is obvious that the reflective property of water confers equal brightness on all parts of the view.

The production of photographic pictures in printing-ink by means of the press is now receiving a great deal of attention. Most of the processes adopted owe their origin to the effective mixture of gelatine and bichromate of potash. It will be necessary to explain that the gelatine so treated is not only—after exposure to light—rendered insoluble, but it becomes quite non-absorbent of water. This property is taken advantage of in the following manner. A thick plate of glass or metal coated with the mixture is exposed under a negative, and afterwards placed for a time in cold water. It is then found that those parts of the plate which represent the lights of the picture remain flat; whilst the other portions which have been protected from the light swell up into high-relief. The plate can then be rolled with ordinary printing-ink, and impressions taken to any reasonable amount.

Space will not permit us to detail the various modifications of this process which exist under different designations. Metal plates can now, by a very similar treatment, be made ready for the etching acid. Wood-blocks which no artist but the sun has touched, can be given to the engraver ready to his hand. The lithographic printer is also independent of the draughtsman, for absolutely perfect fac-similes of maps, plans, &c.; line-subjects can also be produced in endless quantity.

The applications of this wonderful art are already legion, and are so continually receiving additions, that we may hope that its sphere of usefulness will be extended beyond all present calculation. As a means of livelihood for thousands, its

importance in a commercial sense is invaluable, while as the handmaid of the philosopher, it fulfils a higher duty, in helping us by sure and certain steps to the attainment of scientific truth.

THE LAST OF THE HADDONS.

CHAPTER XL.—CROSS-PURPOSES.

OUR journey back to Fairview was a very silent one. Under the plea of being tired, Lillian lay back in the railway carriage with her eyes closed and veil down. I did not disturb her, and for the best of reasons: I could think of nothing very cheering which could be honestly said. Marian Reed was an unpleasant fact, which could not be argued out of existence, nor even smoothed over by all the words in the dictionary combined. The carriage was waiting for us at the railway station; and only just as we arrived at Fairview did I venture to speak: 'Are you going to tell Mrs Tipper to-night, Lillian?'

'Yes. And you will help me, will you not, Mary? I shall depend upon that,' clinging closer to me, and feeling, I knew, terribly in need of help. 'Of course I will, if you wish it, Lillian. But I must stipulate that you first come to my room and rest for an hour.'

She obeyed me like a child—utterly worn out in spirit, holding my hand fast in hers as she lay on the couch, and murmuring every now and again: 'Help me, Mary; don't leave me.'

'Since I have promised, I suppose I must, my dear,' I replied in a rallying tone. 'But I do not generally care much about helping people who do not help themselves.'

She yielded to a burst of tears.

'That's better, dear—far more sensible,' I remarked, wiping my own eyes: 'one generally gets on more comfortably after availing one's self of that privilege.'

'Privilege?'

'Right,' if you prefer the word; one of our rights. If one could attain the end by more dignified means, it might be as well; but the grandest of heroines occasionally shed tears; so I suppose it is the best known method of making one's self comfortable; and harmless enough when used with discretion—as heroines use it.'

'Ah, Mary, you are not talking like yourself. When you talk like that, I sometimes think it is to conceal'—

'Well, dear; why do not you go on? To conceal what—that I am *not* a heroine?' I asked in a jesting tone, only too glad to be able to draw her sufficiently away from painful reflection for a little nonsense-talk.

'I sometimes think that having larger needs than other people'—

'Well, dear?'

'Which needs have not been satisfied'—

'There is something still required to make a complete sentence, you know.'

'Are large needs ever quite satisfied, Mary?'

'Dear Lillian—dear sister—perhaps not.'

'Mary, you said *sister*!' A soft flush in her face, and eager love in her eyes.

'Because I meant it, I suppose, dearie; I can give no other reason,' I said, trying still to keep the jesting tone. 'If you do not object to an elderly sister?'

'Not if elder sisters do not put themselves out of reach of the sympathy of the younger.'

'Put themselves,' I repeated musingly. 'May not circumstances do that for them?'

'When will you tell me—dear Mary, when will you let me feel that you really are like a sister to me?'

At which I morbidly shrank back into my shell again. 'When my love-story is finished you shall hear it.'

'Finished! As though a love-story ever *could* be finished—as though you or I would care to have one, if it could! But you have not told me even the beginning.'

'You have found out that for yourself, darling.'

'And am I right in thinking—I hope I am not; but— Dear Mary, am I to say exactly what I think?'

'Exactly.'

'Then sometimes I think that one you loved — Mary, is he dead?'

Dead! Philip dead! I laughed in spirit. If he were dead, should I be alive—in this way? I did not reflect that my silence and the few tears which stole down my cheeks might seem to bear out her theory as to my having something to regret. But I presently shook myself free of sentiment, smilingly observing that we could not afford the luxury of analysing our feelings just then. Sentiment would be only a stumbling-block in our way, when we needed all the nerve, courage, and steady self-control we could muster.

'To begin with: would you like me to make matters smooth and pleasant with Mrs Tipper before dinner, Lillian? You would then perhaps find less difficulty in broaching the subject to Mr Trafford, if, as I fancy, you prefer doing so in our presence?'

'Yes; I do prefer that, ever so much; and I shall be glad if you will tell auntie, Mary.'

As I had anticipated, we found no difficulty in bringing the dear little lady to our way of thinking. As soon as she had in some degree recovered her astonishment at the revelation, she expressed her entire approval of what had been done. She was not a little shocked and distressed to find her brother had been less perfect than she had imagined him to be; but it appeared to her a natural and right thing that Marian Reed should be asked to come to reside at Fairview. Even my little 'aside,' which I thought necessary, lest her expectations should be unduly raised, to the effect that we did not as yet feel quite sure Marian would be a desirable person to live with, had no weight with Mrs Tipper. She could only look at the question from one point of view—whether it was right to do as Lillian had done. Whether the other would be more or less pleasant to get on with, was, in her estimation, beside the matter. There were no more complications in Mrs Tipper's estimate of right and wrong, than there were in her niece's.

Our real difficulty was to come; and although she said no word about it, I knew Lillian felt that it was. Arthur Trafford was dining with us; he very rarely missed coming since Mr Farrar's death. But it was not until after dinner, when we had returned to the morning-room (we all preferred its cosiness to the drawing-room splendour, now), that the subject was approached.

In reply to her lover's question, which had been asked more than once during dinner, and was now

repeated, as to how she had got through the day, Lillian drew nearer to me and murmured: 'Mary and I went to town, Arthur.'

'To town! What for? Why in the world did you not tell me you were going? It was not like you, Lillian, to say no word to me about your intention last night;' with, I fancied, a rather suspicious glance towards me as he went on: 'I do not like the idea of your running about like a mere'—

She looked very pale, seeking, I think, in her mind for the best way of commencing.

'I was obliged to go; and you must try not to blame me for having said nothing about it to you first, Arthur,' she said, in a low tremulous tone, which I saw flattered his vanity, as proof of his power, and the timid yielding spirit, which he was pleased to think so characteristic of her. Not that he wished her to be timid and yielding to any one but himself; or was ready to make sufficient allowance for her acting according to her nature, upon all occasions.

'Blame you, darling! I am only anxious that you should be properly protected'—with an emphasis and glance in my direction, which would have given me some reason to quake, had Mr Trafford's friendship been of great moment to me. But I was quite aware that little as I had been in favour before, I had been steadily and surely declining in his estimation since Mr Farrar's death; and being, therefore, quite prepared for what was to come, I took no offence at the 'properly.'

Lillian slipped her hand into mine. 'We were quite safe, Arthur; it is not that'—She hesitated a moment; then added, crimsoning to her temples: 'There is something to tell you. Poor papa made a communication to Mary and me, the night—at the last, Arthur.'

'A communication!' I saw he was now really disturbed; too much so to make objection to the 'Mary and me.' 'What do you mean, Lillian? The—will'—

'The property was to have been shared' (she again carelessly used the word 'shared,' in her indifference to the monetary part of the question) 'between me and—another, if papa had lived to sign his will, Arthur.'

'But he did not live to sign it!' he ejaculated, heaving a great sigh of relief, and, somewhat to my amusement, glancing triumphantly towards me.

I saw now that he had jumped to the conclusion that I was the 'other' alluded to.

'No; but his last wishes would be binding to me, Arthur; even if I had not given a promise,' said Lillian.

To spare her—I could see that he was on the verge of giving expression to what was in his thoughts, which would have unnecessarily pained as well as astonished her—I came to her assistance.

Mr Farrar made a revelation to Lillian and me during his last moments, Mr Trafford. There is another daughter living; and he begged Lillian to do the justice which he himself was not spared to do; though the will was prepared in which Marian was provided for.

'Another daughter! Share!'

In his first astonishment and dismay, he was only able to compass those two facts. But he

presently added: 'He must have been raving. It would be the height of folly to take such a statement as that seriously; of course he did not know what he was saying.'

'It has been proved to be true, Mr Trafford. There is another daughter; and Lillian and I have seen her.'

He had had a few moments for reflection, and something of the truth, I think, began to dawn upon him. Looking towards me, he said: 'I never heard that Mr Farrar was married more than once, and I know Lillian was her mother's only child.'

'Lillian's sister is three or four years older than she is, Mr Trafford,' I explained.

He understood now, and said: 'In that case, Mr Farrar could never seriously have contemplated allowing her to share his property with his lawful child, Miss Haddon.—And it is all the more to be regretted that you did not take me into your confidence at once, Lillian;' turning reproachfully towards her. 'Such matters are generally, and very properly, left to the management of gentlemen; and the lawyer and I could have spared you being brought into contact with'—

'Papa left it to me to do, Arthur,' said Lillian, in a low voice.

'Because he was not at the time capable of judging what was best to be done, and he had no male friend at hand. I can never sufficiently regret happening to be out of the way that night. But you will learn in time to understand the matter rightly. It would be wrong to his wife and child—altogether false sentiment—to talk about doing more than is customary in such cases. Proper provision should, of course, be made; but I entirely set my face against raising a person of that kind above the station to which she doubtless belongs.'

'Papa begged me to be good to her, and I must obey his last wishes.—A moment, Arthur? It is indeed too late to draw back now. I have already seen my—sister, and have asked her to come to live at Fairview.'

'To live! Here—with you? Lillian, have you taken leave of your senses?'

'I have told you—I promised papa to be good to her,' repeated Lillian with a gentle persistence, for which I think he was entirely unprepared.

'Nonsense, Lillian!' he replied, with an angry glance in my direction. 'You have been badly advised, I fear. You may be good to the girl without going to such unnecessary lengths as you seem to contemplate doing. Besides, something is surely due to me in the matter. Considering our relation towards each other, I have just grounds for thinking myself very unfairly treated in not being informed of all this before, and allowed some voice in the matter.'

Had he been anyway different from himself, I might have agreed with him; but then Lillian would have acted very differently. Though she knew it not, she had acted as she had done because he was what he was, and not from any other reason. She had intuitively shrunk from telling him until it was too late for interference; and he himself had been to blame for that. And though she was now rather uncomfortably conscious that, in her anxiety to carry out her father's wishes, she had overstepped the limits of prudence, it was not because

Arthur Trafford pointed it out to her that she was conscious of it.

'I was so desirous to do what is right,' she murmured.

'And that was the best thing you could desire, my dear,' cheerily put in Mrs Tipper. 'Never fear but good will come of it; and I really can't see why we shouldn't all be comfortable together.'

'A sort of happy family, cats, bats, and owls!' angrily ejaculated Arthur Trafford. 'I am afraid I should not be found sufficiently tame for such a dove-cot, Mrs Tipper!'

Lilian laid her hand upon his arm, looking with a pained expression into his face: 'Are you really angry with me, Arthur? Do you give me credit for wishing to vex you?'

'I am hurt at your want of confidence in me, Lilian. I do not see how you could expect me to be otherwise.'

These were better tactics. He saw that they were, and kept up the injured tone. Presently he asked her to go out into the grounds. I believe he fancied that he had now found the way to influence her, and that it only needed to get her away from our vicinity, to bring her entirely round to his own way of thinking. He did not know Lilian Fari.

An hour later, she came in looking more wearied and sad, but not worsted. Moreover, by her absolute silence respecting what had taken place between them, I knew that she had had me as well as herself to defend. But, as I had expected, he had not succeeded in inducing her to alter her plans; and the first shadow of the truth had fallen upon both. They knew that they were each something different from what the other had supposed.

During the intervening ten days, the subject of Marian Reed's expected arrival was touched upon as little as possible between us; though I believe we could none of us think of anything else, we avoided anything like discussion upon it. The only words which passed between Lilian and me on the subject were with reference to the room which was to be prepared for her, and one hesitating remark to the effect that Marian might perhaps prefer the relationship not being made known, since she could only be called Miss Reed.

Arthur Trafford had had time for reflection; and had, I think, come to the conclusion that his wisest course was to make no more objections for the present, but to quietly await the issue. Dear old Mrs Tipper looked anxious and nervous, though she made one or two attempts to smooth matters, amiably opining that the new-comer might prove an agreeable acquisition to our circle, and so forth. But it was evident that she dreaded the arrival of Marian Reed as much as the rest of us. As to the financial part of the question, she judged that in her own unconventional fashion, Lilian would be none the less happy for some diminution being made in her large fortune. Her brother had never been quite so happy in affluence as when he was working his way to it; and as to herself, she had more than once confided to me that existence at Fairview was not to be compared to the old times, when she had been busy from morning to night keeping her little cottage-home in order. In truth, such society as she had seen at Fairview had no attraction for her; and her sympathies were entirely on the side of a modest competence.

Lilian grew at length so restless and anxious, that for her sake I was quite relieved when the day fixed for Marian Reed to make her appearance amongst us arrived. Anything was better than the suspense we were all in, or rather I thought so then. Lilian had received a note from Miss Reed, saying that we might expect her the following day by the mid-day train, and reminding the former of her promise about sending the carriage. It was written in the orthodox boarding-school, pointed, illegible style; signed 'Your Affectionate Sister,' and evidently meant to be an elegant specimen of Miss Reed's epistolary powers. It must, I think, have cost her no little trouble to join together so many fine words to convey the intelligence that we might expect her.

Lilian tried hard to overcome the dread, not to say antipathy, she felt; honestly tried; but it was no use; first impressions had been terribly against Marian Reed. The poorest cottager's child seemed a more desirable inmate for Fairview than the elegant Miss Reed. The nervous way with which Lilian reminded me: 'You have promised not to forsake me, Mary,' when the time at length arrived, would have told me how much she dreaded what was to come, had I not already known. I made no profession—none was needed between us. She understood, and was satisfied with my quiet way now.

We nevertheless found it necessary to clasp hands, and look for a moment into each other's eyes, as a tacit reassurance that whatever might come to pass we two were to hold together, when the carriage drew up before the railway station.

We had no difficulty in recognising Miss Reed. The young lady in deep mourning, her dress trailing half a yard behind her on the ground, haughtily giving directions to the porter to see to her luggage, was unmistakable.

'And, look after the carriage; I expect a carriage is'—She turned, and caught sight of us advancing towards her. 'Oh, here is my sister! I thought you would be waiting, dear' (kissing Lilian very demonstratively; I was uncharitable enough to suspect, more for the edification of the people standing about the platform, than from exuberance of feeling). 'Did you come in the carriage?'

'Yes; we drove over.'

This I fancy suggested the idea of a small chaise to Miss Reed; and she expressed her fear that her boxes 'and all that' would be more than we could take. Lilian explained that a luggage-cart was in waiting for that purpose.

'Oh, of course!' And with a negligent air Miss Reed went through the booking-office with us.

But the first sight of 'the carriage' was almost too much for her philosophy. She uttered an involuntary ejaculation of astonishment when she saw the barouche with a couple of spirited horses, and men-servants. She, however, very quickly recovered her self-possession, sinking back into her seat with a graceful languor, which seemed to indicate that if she had not gone through the process before, she had watched others doing it. She was quite at ease; and as she proceeded to make talk about the weather, the country we were passing through, and so forth, I saw that Lilian was much less self-possessed than was Marian Reed, gladly leaving me to answer for her.

Much as she desired to do right, it would take Lilian some time yet to feel that this was a sister.

Her very anxiety lest she should not be kind and considerate enough, made her appear nervous and ill at ease. At the outset Marian Reed had placed us awkwardly, by shewing that she meant to force the sistership upon every one's notice. I know now that she herself experienced no sort of shame or delicacy respecting the relationship; whilst Lillian by her very nature felt so much, and could not in the least perceive the true cause of the other's attitude. Indeed the very self-assertion seemed to Lillian but assumed as a sort of self-defence against people's want of charity in such cases.

CURIOSITIES OF THE RAILWAY-TICKET MANUFACTURE.

In an article on 'Railway Tickets' in this *Journal* for September 23, 1876, it was stated that all the railway tickets for the whole world, except North America, are made in one establishment in the north of England. This statement we have since found requires correction, and in the correcting we gladly avail ourselves of an opportunity for noticing a celebrated factory in London, which by the courtesy of the proprietors, Messrs Waterlow and Sons (now a Company, 'Limited'), we are enabled to do.

Like many other great establishments, Messrs Waterlow's has grown from a small affair to gigantic proportions. Beginning with law-stationery, then advancing to account-book manufacture, then to various kinds of commercial printing, it has gone on step by step, until at present it gives employment to between three and four thousand persons. Where the several factories and commercial offices are situated would be hardly intelligible save to Londoners; suffice it to say that most of them are near Finsbury Square.

One of the factories, consisting of lofty buildings surrounding an open quadrangle, is devoted to ticket making and printing, chiefly railway tickets; and to the process as carried on there, we will now direct our readers' attention.

The cardboard for tickets is made of a slightly spongy texture, well fitted to take paste. It is known technically as 'middles,' and is the foundation for two external surfaces of paper, white or coloured as the case may be. The primitive paste-brush has long been discarded. A cleverly constructed machine pours out a stream of paste on two rollers, under or over which pass two sheets of paper, each of which becomes thoroughly pasted on one side. These are then quickly applied to the surfaces of the 'middle.' The paste-caldrons, in a compartment by themselves, have a vigorous appetite for flour, alum, and water, and pour forth volumes of steam. To shew what a 'bit of paste' may become when multiplied by millions, it will suffice to say that thirteen sacks of flour *per week* are used in this one factory! After the pasting, each sheet of cardboard, large enough for one hundred and twenty-five railway tickets, is, with others of the same kind, subjected to flat-pressure, rolling-pressure, and heat, until the surface-papers are firmly and smoothly attached to the 'middle'; exposure to a high temperature in heated chambers thoroughly dries them. Cutting-machines sever the sheets into single tickets, the well-known railway-ticket size, all precisely alike in dimensions.

Next comes the printing. Messrs Waterlow adopt four different commercial systems in the supply of these tickets. In the first system they manufacture the tickets throughout for the railway Companies, who issue them ready for use to the booking-clerks at the several stations. In the second, they partially print the tickets, leaving the Companies to finish them according to the varying exigences of the traffic. In the third, they sell the blank tickets, properly prepared and cut, to the Companies; the printing in this case being wholly carried on by the Companies. And in the fourth, they sell the machines to the Companies, with a license to use them. To specify the railway Companies that adopt one or other of these systems would be tedious detail. The principal machine is a beautiful contrivance invented and patented many years ago by Mr Lewthwaite, of Halifax, Yorkshire; and various improvements and new adaptations have been made in it from time to time by Messrs Waterlow.

A pile of about five hundred blank tickets is placed in an upright tube or hopper, with just room to sink down readily. The bottom of the tube is open, allowing the lowermost blank to rest upon a flat metal plate. A slider, with a rapid reciprocating horizontal motion, strikes the lowermost blank dexterously aside to a spot where it can be printed on the back with those cautions, instructions, and references to by-laws which most of the Companies deem proper to communicate to the public. Another sharp stroke drives the blank farther on, where the printing and numbering of the front or principal surface are effected. When the blank is printed on both surfaces it is struck onward again, and comes underneath an exit or delivery-tube, just the same height and dimensions as the hopper or feeding-tube. Up this it is driven by a series of jerks, until a pile of (say) five hundred is finished. In travelling horizontally from tube to tube, and vertically up the delivery-tube, each ticket acts as a kind of cardboard policeman, saying to its predecessor: 'Move on, if you please.' And they *do* move on, all undergoing some process or other at each stage of the movement. As the pile in one tube lessens, so does that in the other increase in height, like the two columns of liquid in a syphon. The whole pile can be removed from the delivery-tube at once by a dexterous hand; but woe betide the luckless wight who 'makes pie' (as the printers call the dropping and disordering of types in 'composing' or 'distributing'); for if a single ticket be disarranged, extra trouble is given in the after checking and correction.

As to the various colours displayed on railway tickets, some depend on the use of coloured sheets of paper in the first instance; some on the production of stripes of colour in a way bearing a resemblance to the making of coloured stripes on earthenware or stoneware in the pottery district; and some by a process more nearly resembling ordinary printing. One of the Companies adopts a particular diagonal red line on all tickets, distinguishing them from other tickets which have to pass through the railway clearing-house.

The automatic action of the machine or machines is very beautiful. For *numbering* each ticket, a peculiarly constructed wheel is used, which changes its particular digit every time a new blank is presented to it; and thus the consecutive numbers are produced on a series of tickets with unerring

accuracy. A tell-tale index and a tell-tale bell, both automatically worked, give information as to the number of tickets printed, and the readiness of the machine to take in more food; but it is a matter of practical detail whether and when these tell-tales shall be deemed necessary. To give the reader an idea of how nicely this mechanism is adjusted, it refuses to work unless all the tickets are exactly of equal size, nicely squared, and in perfect order. It strikes one as being almost like a thing of life to see the machine detect a ticket from which a piece has purposely been torn off one end; its language is virtually, 'Thus far shalt thou go, and no farther,' for it prints as far as the defective ticket, and there stops.

As neither human fingers nor automatic machines are absolutely infallible, errors in numbering may occur in spite of all precautions. These are detected in a singular way. All the tickets in one series are made to pass through a machine with a velocity which the eye can scarcely follow. When stopped, the numbers are tested by two little index plates or wheels; if the same number is denoted on both indexes, all is well; but if any error has crept in, the index notifications differ, and afford means for determining at what part of the series the mishap has occurred.

A sheet of cardboard is certainly not a ponderous substance; but it is surprising how weighty the packages become when large quantities have to be dealt with. The tickets are tied up into small compact rows (string and tying being peculiar), and then packed into cubical masses in tin-lined boxes or cases—so firmly and closely pressed as to be as dense as a mass of wood. About fifty thousand tickets weigh one and a quarter hundredweight. The factory turns out two and a half millions of printed tickets (railway, steamboat, refreshment, &c.) per week, and ten millions of smoothly prepared but unprinted tickets; these numbers, multiplied by the fifty-two weeks in a year, give a total annual production of something like *six hundred and fifty millions*, weighing upwards of sixteen thousand hundredweight! If these tickets be taken at two inches in length, and if they were laid flat end to end, they would reach—But we will leave our junior readers to exercise their arithmetical skill in solving this problem: merely hinting that it would require many voyages from England to America, and back again, to cover a distance equal to the length of this cardboard ribbon. From such small beginnings do great results ensue.

FISHING EXTRAORDINARY.

THERE are extraordinary ways of fishing practised by people of uncivilised countries, which are not the result of ignorance, but of that ingenuity which is always rendered fruitful by dire necessity and the instincts of self-support. The Chinese, amongst their many original ideas, have some curious ones on the subject, and doubtless fish now as they did a thousand years ago; and though on the coasts they may have adopted the generally accepted system of working nets, on the waters in the interior of the country they adhere to the methods peculiar to their own nation—methods quaint and curious. The lakes and rivers of China, and espe-

cially of the north, are so abundantly stocked with fish, that in some places the men called fish-catchers make their living by actually seizing and drawing them out with their hands. The man goes into the water, and proceeds half walking half swimming, raising his arms above his head, and letting them drop, striking the surface with his hands. Meanwhile his feet are moving on the muddy bottom. Presently he stoops with a rapid dive and brings up a fish in his hand. The striking of the surface was intended to frighten the fish, which when alarmed, sink to the bottom; then the naked feet feel them among the mud, and once felt, the practised hand secures them in a moment. Catching fish in this manner is of course a trade in itself, and the plentiful supply it implies is somewhat explained by the fact that even the little ponds of Northern China swarm with scaly life.

On the great Ning-po river the same principle is used on a more extended scale with boats and nets. The boats are ready for the flow of the tide to take them in crowds up the river, and when they halt, the nets are thrown out, and the oars and sculls beat the water with a loud plashing noise. After resting in the same place for ten minutes or a quarter of an hour, they move on again to another station, and there repeat the beating and splashing. The noise on the surface is meant for an alarm, as in the case of the fish-catcher; and it is said that this mode of fishing soon loads the nets.

Another curious method employed by the Chinese is generally practised at night, and depends upon a peculiar power which a white screen, stretched under the water, seems to possess over the fishes, decoying them to it and making them leap. A man, sitting at the stern of a long narrow boat, steers her with a paddle to the middle of a river, and there stops. Along the right-hand side of his boat a narrow sheet of white canvas is stretched; when he leans to that side it dips under the surface, and if it be a moonlit night, gleams through the water. Along the other side of the boat a net is fastened so as to form a barrier two or three feet high. The boatman keeps perfectly still. If another boat passes by, he will not speak; he is only impatient at the slight breaking of the silence. While he keeps thus without a sound or stir, the fish, attracted by the white canvas, approach and leap, and would go over the narrow boat and be free in their native waters on the other side, but for the screen of netting, which stops them, and throws them down before the man's feet.

Every one must have heard of the fishing cormorant, which is actually trained in China to catch fish. A man takes out ten or twelve of these web-footed birds in a boat, and as soon as the boat stops, at his word they plunge into the water and begin at once searching for and diving after fish. They are most diligent workers, for if one of them is seen swimming about idly,

the Chinaman in the boat strikes the water near the bird with the end of a long bamboo; and, not touched, but recalled to a sense of duty, the cormorant at once turns to business again. As soon as a fish is caught, a word from the man brings the bird swimming towards him. He draws it into the boat, and it drops its prey from its bill. There is always a straw or string tied round the neck, to prevent the fish from being swallowed, and this string requires the nicest adjustment, lest it may choke the bird—a result which would certainly follow if it slipped lower down on the neck. The sagacity and workman-like method of the birds are shewn when they get into difficulties. If the fish caught is too large for one beak to secure, another cormorant comes up to the struggle, and the two with united efforts bring their prize to the boat. On the rivers and canals near Ning-po, Shanghai, and Foo-chow-foo, the employment of these birds is by no means an uncommon sight; but they are never to be seen fishing in the summer months, their work being in the winter, beginning always about October and ending in May. The birds have of course to be subjected to a system of training, which is carried on in the cormorant breeding and fishing establishments, one of which is at a distance of thirty or forty miles from Shanghai.

Some tribes of Indians catch fish by drugging them. They make the soft branches of the Indian milk-bush or the euphorbia into pulp, and throw it into the water of the ponds. When the fish taste it, they lose the power of swimming, and are easily taken floating helplessly in the water. They also mix with dough a powder made from the *Cocculus Indicus*, the effect of which is that when thrown into the water it intoxicates the fish, and they swim in circles on the surface, where they can be caught in a hand-net. Lime is sometimes used in the same way; but the disadvantage of that system is that it causes such wholesale slaughter that there is danger of small ponds being rapidly cleared.

A still more singular practice is to be found amongst the Chonos Indians, who train dogs to help them on their fishing expeditions in much the same way as the shepherd's dog helps the shepherd. The net is held by two men standing in the water, and the dogs, swimming out far and diving after the fish, drive them back towards it. They enjoy their work just as a good horse, though hard pressed, seems to enjoy the hunt; and every time they raise their heads from the water they tell their pleasure by clamorous barking. The Fuegians, one of the most miserable and degraded races on the earth, train their dogs in a similar manner to assist them in catching birds. They have a wonderful contrivance for killing the sharks which abound off their coasts. A log of wood shaped so as to appear something like a canoe is set afloat, with a rope and large noose hanging from one end of it. Before long a shark attacks the supposed canoe, swimming after it, and is caught in the noose

hanging from the stern. It closes on him so that he cannot extricate himself, and the weight of the log keeps him swimming slowly without being able to sink. Then the Fuegians in their canoes, generally steered by women, approach at their leisure and finish the shark with their spears.

All these contrivances of savage nations or of the strangely civilised Chinese, are meant to kill or seize the fish by natural means. It is much nearer home that we have to look to find the element of superstition prevailing, and useless customs invested with the importance of charms. An instance may be found in the case of the Sicilian fishermen, who, when in search of sword-fish, chant a jargon of words the meaning of which even they themselves do not know. The song is supposed to be some old Greek verses, which, by time and use among those ignorant of their meaning, have become so altered as to be almost unrecognisable. The fishermen regard the medley as a sure means of attracting the sword-fish, which they harpoon from the boat, when the charm, as they suppose, has brought them within reach.

Far away in northern regions there is a novel method of fishing under ice, which shews more ingenuity than the simple lowering and fastening of a net. A small square hole is cut in the ice, and in this is placed an upright stick, supported by a cross pin run through it and resting at each side on the ice; the end of the stick below this cross pin is short, and to it the line is fastened with the bait and hook attached, while at the top of the stick is a piece of coloured rag. Now, though we have called the stick upright, it is meant to fall from that position and lie along the ice, until a fish seizing the bait pulls its lower end, when with a jerk it rises. This contrivance is called a 'tip-up,' from the movement which is certain to follow the seizure of the bait. The fluttering of the coloured rag, as the stick rises, tells of the capture; and a great number of these self-acting fishers and indicators may be placed near together, each having its own hole in the ice; and each, by the fluttering rag, telling its own tale the moment a fish is caught.

The tip-up not only saves the fisher the trouble of holding his line in position and watching with particular care, but also makes the fish itself 'strike' and announce that it is ready to be pulled out! In fact its ingenuity is only surpassed in the old tale of the Irish monastery, where at the neighbouring salmon-leap a large pot was hung so as to be just clear of the falling water, but in the way of any salmon that leaped recklessly; and a bell was placed so that the fish could not fail to ring its own knell as it fell; thus announcing to the good brothers at the monastery that he was there, not only secured, but actually in the pot, ready to be boiled for dinner.

For the following curious fishing items we are indebted to a writer in *The Field*. Regarding fishing in the Japanese seas, he says:

Through an inlet on this coast our small boat is sculled by two sturdy Japanese fishermen, who drive the light craft across the shadows of the hills with speed remarkable. Standing on their feet, they swing with wonderful power a long heavy oar poised on a pin on the quarter; and while we go, these men are watching the tangle sheltering their prey—the octopus, the cuttle-fish, and the sea-cucumber.

With bodies blackened by the sun to the colour of the sea-weed, these almost naked men were incommoded by neither the rain nor the winds. Like the fishermen of all lands, their restless eyes were wandering from the sea to the heavens. With no guides but the stars by night and the blue edge of the land by day, there was need for keen eyesight and watchfulness. In all the Eastern seas there is no more adventurous race than these men.

'We could see the floats of burnt wood which buoyed the ends of our fishermen's lines, and to the nearest of these we were sculled. A kind of wood, light and buoyant, and with some resemblance to cork, is used for such floats. It grows in the forests thereabouts, and after being shaped and charred to prevent decay, lasts, without further trouble, for a longer time than bladders or skins. With some impatience the black buoy and the line attached are brought on board. Like an inverted bell-shaped flower-pot comes the first earthenware jar, hardly the size of a child's head, attached to the line. Mouth downward, the jar is pulled up from the bottom, and when all the water has been poured out, the fishermen give a look inside. No occupant being found, the jar is once more lowered into the sea by the attached string, which is overrun till the next jar is pulled up, brought on board, and similarly examined. When six or seven are examined, and no occupant is found in any of these, the fishermen shew no impatience. But presently from a jar an octopus is jerked upon the floor of the boat, and with some satisfaction the Japanese watch its tentacles wriggle all about the planks and cling round their legs. Changing its hues, the disgusting cephalopod loses its redder blotches for paler patches, and eventually crawls into a darker corner to coil itself away. Pouring the water more carefully from the inverted pots, the fishermen secure a few more of these animals, which crawl and twine about with snake-like contortions. The long string of pots took time to overhaul, but the spoils were reckoned reward for the trouble. When the fishing was completed, and the black floats were again left to mark the spot, our boat was sculled somewhat farther down the land.

'We had then time to learn something more of this fishing for tako, as the octopus is named by the Japanese fishermen. Through our friends, we learn that the tako needs no bait to entice it to enter the earthen jars used by the fishermen to entrap it; but crawling about on the bottom, or shooting itself through the sea by the expulsion of water, it finds in the dark earthen jar "a comfortable house," and so occupies it until the fisherman finds it and captures it. The tako is largely eaten in Japan, where all the products of the sea are accounted equally wholesome with those of the land; and beneath an ugly skin the flesh of this speckled monster is thought very good, cooked in several ways, and eaten with or without soy or vinegar. Nevertheless, as if to vindicate the dread its constantly changing hues excite, the eating of the octopus is not unattended with danger. Through some poisonous taint either occasionally or always present, but modified by the process of cooking, people sometimes die from eating this animal. And yet the knowledge of this interferes but to a trifling extent with the use of food having such a questionable reputation—indeed at certain seasons it is largely used by the Japanese,

when the cuttle-fish are far more plentiful and also more wholesome. Caught by trolling a small wooden fish barbed with hooks, they make good sport, chiefly to the older fishermen, who are not active enough to go off to sea.'

A RELIC OF ANTIQUITY.

OWING to various causes, the relics of antiquity in our Great Metropolis are year by year becoming fewer and fewer in number. The utilitarianism of the age has, doubtless, much to answer for; but much harm is done by pure carelessness and neglect. Only a few days back the house in which John Milton lived was pulled down; for that act some excuse on the ground of public improvement may doubtless be urged; but none surely can be successfully pleaded for allowing so interesting a relic as the ancient Pyx Chamber in the cloisters of Westminster Abbey to go to ruin. Judging, however, from what the Warden of the Standards states in his recently published Report, this seems likely to be the case, unless he can induce the Office of Works to do something for its preservation. We hope that success may attend his efforts. This ancient historical chamber is so interesting from its associations, and so curious as a rare specimen of early Norman architecture, that we shall perhaps be pardoned for abridging some brief particulars respecting it from the Report alluded to.

This ancient crypt, which forms part of the Saxon or very early Norman substructure of the outbuildings of the Abbey, is certainly as old as the time of Edward the Confessor, and is believed to have been constructed in his reign. It has also been known as Edward the Confessor's Chapel. The vaulted and groined ceiling is supported by massive stone pillars, and the building is one of the very earliest Norman works in the country. The floor is paved with ancient coloured tiles. After the Conquest, this chamber was used as one of the king's treasuries, as a sacred place of deposit. The remains of an altar at the east end, and of a *piscina*, seem to indicate its original sanctity. There is, however, a tradition that what has the appearance of a stone altar is the tomb of Hugolin, the Confessor's chamberlain. In 1303, the thirty-first year of King Edward I., the whole of the king's treasures were deposited in this ancient chamber, the entrance to which, on the west or cloister side, was at that time, as now, secured by two massive doors with seven locks. During the king's absence in Scotland, when engaged in war, the northern wall of the chamber was broken through by some of the monks of Westminster Abbey, and the whole of the treasure carried off. It included four crowns, with the king's rings, sceptres, jewels, gold and silver coin, and plate, &c. The greater part of the booty was, however, afterwards recovered, and the monks tried and found guilty. The depositions at their trial still exist amongst our ancient records, but the actual punishment inflicted on the thieves is not recorded; some significant evidence, however, still remains of what was probably their fate, inasmuch as an old door on the north side of the chamber, opening into the passage to the chapter-house, has portions of a human skin still fastened to it! It would appear that, in consequence of this robbery, the approach to the chamber on the north side was walled off, and the room was reduced in

size by one-third. After the Restoration, the regalia and other similar treasures of the sovereign were removed to the Tower, and the chamber was then known as the 'Treasury of Leagues,' the original parchment documents of commercial leagues with foreign states being deposited there. Several large oak presses are still in existence in which these leagues were kept; some of them are furnished with drawers, and bear inscriptions on parchment or merely in chalk, indicating the nature of their former contents. There are also several large ancient coffers or chests still remaining in the chamber, in one of which the Standard trial-plates of gold and silver for trials of the pyx were formerly kept, whence the chamber became known as the 'Pyx Chapel.' At the present time, no official documents or articles of any value are kept in the Pyx Chamber, and its interior has been allowed to get into a very dirty and decayed state; indeed, Mr Chisholm goes so far as to aver that nothing has been done to it during his period of public service, now more than fifty-one years!

THE COMMERCIAL TRAVELLERS' SCHOOLS.

A wish has been expressed, in reference to our article 'The Commercial Traveller,'* for a brief notice of the admirable schools belonging to that praiseworthy body of men at Pinner, near Harrow.

The Institution was founded about thirty years ago; but the present building dates from 1855, when the ceremonial opening was conducted by the late Prince Consort. Wings were added afterwards; and in its present form the establishment accommodates about three hundred boys and girls—say two hundred of the former and one hundred of the latter. The Institution clothes, maintains, and educates the destitute orphans of deceased commercial travellers, and fatherless children of the necessitous members of the craft. No favouritism would suffice for the admission of children other than those belonging to this category. As the Institution is wholly supported by donations and subscriptions, the donors have rightfully a voting power for the admission of children. Governors, managers, trustees, &c. are appointed in the manner usual in analogous institutions. Children are admitted by ballot-voting twice a year; they begin at various ages, but all quit the Institution at the age of fifteen, when they are assisted with an outfit and aid in obtaining suitable situations. The education given is really excellent, comprising (for boys) reading, writing, arithmetic, algebra, geometry, geography, map-drawing, grammar, English composition, Latin, French, English history, class-singing, and instrumental music; and for girls, most of the above branches, with needlework and domestic duties. A juvenile band is maintained by the boys, under a professional bandmaster. Diet and clothing are good and plentiful. A project has recently been started for an enlargement of the building by adding a new wing, with fifty-two additional beds, a laundry, swimming-bath, and infirmary, at an estimated cost of eighteen thousand pounds.

In our former article we spoke of the onerous duties that press upon many commercial travellers, and of the necessity for probity, energy, and

intelligence on their part. It is well to know what is thought on these points by those who have the best means of knowing. At the last anniversary of the Institution, a partner in one of the great City firms said: 'I spent some of the happiest days of my life among commercial travellers. They are a worthy, industrious, painstaking body of men. They are subject to temptations to which hardly any other class is subject; often leaving home very young, very inexperienced, with frequently a large command of money, thrown upon their own resources, without that best safeguard against temptation—home influence. They must work in all weathers, their energies strained to the utmost against a great force of competition. Their sea of life is never smooth, their work never done, a fresh struggle and battle with the world every half-hour. Sometimes with sickness at home, and the head of the family away, dreading misfortune which he might have prevented or alleviated. A traveller, to be successful, should be sickness-proof, accident-proof, bad-debt proof; and he should be a most wise and temperate man, moderate in all his ways.' If the 'commercial' approaches anything near this picture, he must indeed be an excellent fellow.

The Commercial Travellers' Benevolent Institution, to aid aged and necessitous members of the body, is another praiseworthy offshoot.

TO THE COMING FLOWERS.

AWAKE, dear sleepers, from your wintry tombs;
The sun has turned the point of Capricorn,
And 'gins to pluck from Winter's wings the plumes
Of darkness, and to wind his silver horn
For your return. Come to your homes, forlorn
In absence of your odours and your faces;
Like Rachel weeps for you the reaved morn,
As often as she views your empty places,
Erewhile the daily scene of her and your embraces.

Come, pensile snowdrop, like the earliest star
That twinkles on the brow of dusky Night;
Come, like the child that peeps from door ajar,
With pallid cheek, upon a wasteful sight:
And shouldst thou rise when all around is white,
The more thou'lt demonstrate the power of God
To shield the weak against the arms of night,
To strengthen feeble shoulders for their load,
And sinking hearts' mid ills they could not fall forebode.

Come, crocus cup, the cup where early bees
Sip the first nectar of the liberal year,
Come and illumine our green, as similes
Light up the poet's song. And O ye dear
March violets, come near, come breathing near!
You too, fair primroses, in darkness woods
Shine forth, like heaven's constellations clear;
And come, ye daisies, throng in multitudes,
And whiten hills and meadows with your sauntly hoods.

Come with thy lilies, May; thy roses, June;
Come with your richer hues, Autumnal hours;
O tell your mellowing sun, your regal moon,
Your dewy drops, your soft refreshing showers,
To lift their blessing hands in Flora's bowers,
Nor e'en to scorn the bindweed's flossy gold,
Nor foxglove's banner hung with purple flowers,
Nor solitary heath that cheers the wold,
Nor the last daisy shivering in November's cold!

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* *Chambers's Journal*, Dec. 16, 1876.